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# YOUNG CHILDREN AS DIGITAL PHOTOGRAPHERS – POSSIBILITIES FOR USING THE DIGITAL CAMERA IN THE PRIMARY CLASSROOM

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## **Abstract**

*The affects in education of the digital revolution have been spoken about and researched of late. There is an explosion of applications for computers, use of iPhones, iPods, iPads, mobile phones and other portable technology; all allowing digital access for users to be connected to the rich sources of information. The invention of new devices for communication in the technology ring is ever growing; as soon as one device is introduced into the market there is an announcement of a new model being developed.*

*In regards to application on the classroom what does this actually mean? Not only must there be consideration for how to use the technology but, then there is the transference to personal use. Then of course the extension of this is use in the classroom for meaningful learning experiences that not only enhance children's learning but also take into account their experiences with this technology. New communication technologies open up new possibilities for use in the classroom but to keep up to date is an onerous task. It is not uncommon to hear about rejections of technology being used in the classroom due to expensive, accessibility, and the workability sounding pressures with tight time frames. So these are problems, but how do we move forward and hear about ideas and strategies that actually work?*

*This paper discusses the use of the digital camera as a technology that is hand held, portable and easily accessible for meaningful application in the primary classroom. In sharing practical application, research from a primary classroom is discussed allowing for the sharing of young children's perspectives on learning and teaching while modeling the possibilities for technology to be used productively and meaningfully in the primary classroom.*

## **Introduction**

Information Communication Technology (ICT), fixed, permanent or handheld devices, offer the user opportunity to interact and connect with information in a way that shares, introduces or expands knowledge (Kraidy, 2002). The interactivity with a ICT and how it is portrayed as a gateway to other activities that are digital, providing opportunities to write, research, click to learn more, download, order, 'chat', Stephens (1998, p. 174) are often discussed in literature. Portable, handheld devices, computers and software are tools with the underlying purpose to help people interact with words, numbers, and pictures (Kristof and Satran, 1995). A digital camera is one such technology that offers the user to interact through the generation of digital images when engaging with the device. Thus, offering the user, for example,

capabilities to generate a photograph, view a shot immediately after on the LCD screen, view images later through the digital camera, and further interact with downloading images to a computer.

The interactivity and interconnectedness of the digital camera as an accessible ICT in relation to its capabilities is numerous, ever growing and in reality applicable to anything we do, especially in the primary classroom. The layers of interactivity and choice to engage with this technology are immense – for both the user(s), observer(s) and viewer(s) of photographs and process of generating images. Just acknowledging these roles opens up a dialogue of how basic engagement with a digital camera allows for a technology that makes practicable new forms of non-linear, multidimensional learning that convey complex content (Spiro & Jehng, 1990) and that allows for the ability to visualize information and process parallel data (Kraidy, 2002).

While in the past individuals were concerned with the acquisition of information, modern technologies provide us with far more information than is reasonable to retain. And what has to be remembered is that in the learning environment, not only is it vital to engage productively and meaningfully with these technologies, it is also important to teach is the ability to analysis and sort what information is correct, relevant and appropriate for timing and audience. With ICT, connectedness and accessibility all increasing it is no wonder possibilities for integration into the primary classroom are high on priority for decision making bodies, teachers, and educational institutions and associations alike.

### **Digital Education Revolution in Australia: A national initiative**

Introduced 1 July 2009, the Digital Education Revolution (DER) Strategy (Commonwealth of Australia, 2010a) is a national approach to implement systemic change to increase the level of ICT proficiency for teachers and school leaders across Australia. With \$2.4 billion over seven years, including \$200 million allocated in May 2010 for the years 2013 and 2014, the strategy states teachers and school leaders require access to rich online learning resources, world class technology curriculum and ICT professional development. All these aspects allowing schools to engage with opportunities, created under this strategy, to improve their understanding and proficiency in the use of ICT in the teaching and learning process.

Ensuring strong and ongoing communication between the Commonwealth, state and territory governments, the Catholic and independent schools sectors, school communities and their representative bodies, the Vocational Education and Training (VET) and higher education sectors of education and training, bodies charged with responsibility for implementing other elements of the wider Education Revolution agenda and the wider community has been set as a priority. To achieve this, the commitment to national ICT infrastructure has been made. This includes access to broadband bandwidth, digital learning resources and activities, national curriculum, and continuing professional development for teaching staff in best practice utilisation of technologies to improve learning and teaching outcomes (Commonwealth of Australia, 2010a; 2010b; 2010c).

The Agreement between the Commonwealth of Australia and all states and territories in May 2009, supports the implementation of the DER Strategic Plan and Implementation Roadmap (Commonwealth of Australia, 2010d) to achieve technology enriched learning environments to assist students to achieve high quality learning outcomes and productively contribute to our society and economy. Through this Agreement, a commitment to addressing the four strands of change identified in the Strategic Plan to guide the implementation of the DER initiative and related initiatives for joint national action include:

- a) Leadership – that ensures schools have a coordinated plan for the provision of infrastructure, learning resources and teacher capability to address the educational challenges of the 21st Century;
- b) Infrastructure – access to digital teaching and learning resources and tools for processing information, building knowledge and for communication and collaboration;
- c) Learning Resources – that stimulate, challenge and assist students in achieving desired learning outcomes. These include collaborative and interactive activities as well as instructional and reference materials; and
- d) Teacher Capability – teachers have the skills and tools to design and deliver programs that meet students’ needs and harness the benefits and resources of the digital revolution.

According to the DER, 21st century schools require 21st century programs and educators capable of using 21st century resources and strategies for learning, and the vision of the DER is to empower teachers and school leaders to integrate information and ICT in education. This empowerment is to improve school effectiveness and provide students with the skills required for further education, training and to live and work in a digital world. The Australian Governments’ share the objective of raising overall attainment is so that all Australian school students acquire the knowledge and skills to participate effectively in society.

*While many teachers make use of online curriculum resources, there are a number who resist the use of digital technologies or view them as ‘add ons’ rather than as an integral part of curriculum delivery.*  
(Commonwealth of Australia, 2010a, p.4)

Through this Strategy, the Australian Government will commit \$40 million over the next two years (2010-2012) for the professional development (PD) of teachers and school leaders in the use of ICT. Through this commitment the Strategy will support the implementation of the DER and assist in meeting the Australian Government’s commitment to contribute to sustainable and meaningful change in teaching and learning (Commonwealth of Australia, 2010e). It is proposed that by the beginning of 2012, significant opportunities for all schools will be created:

- Embed the use of ICT as a key component in teaching and learning in pre service teacher education courses;
- Support pre service teachers to achieve competence in the effective and creative/innovative inclusion of technologies in teaching and learning and they are familiar with and can utilize emerging technologies;
- Develop digital pedagogy skills in teachers through the completion of a self assessment tool that directs them to a pathway for further ICT learning and development;
- Engage teachers with professional development to enhance and strengthen their ability to integrate the use of ICT into the classroom and support the rollout of the Australian Curriculum; and
- Build leadership capacity in school leaders to model and implement digital pedagogy and ICT literacy in schools, to support transformational practice.

For schools and teachers, the DER is challenging pedagogy and use of ICT to contribute sustainable and meaningful change to teaching and learning in Australian schools to prepare students for the future. As Kraidy (2002) reiterates:

Digital technologies, however, are initiating a revolution at least of the magnitude of the one spawned by Gutenberg's press. The challenge faced by education, however, is to develop leadership both in shaping the future of technological innovations as well as in adapting to the implications of those developments. (pp.104-105)

The affects in education of this digital revolution are generating interest amongst educators are beginning to be researched about in regards to impact, possibilities and new ideas. But in regards to application in the primary classroom what does this actually mean? New communication technologies open up new possibilities for use in the classroom but to keep up to date is an onerous task. Not only must there be consideration for how to use the technology but then there is the transference to personal use and then of course the extension of this for use in the classroom for meaningful learning experiences that not only enhance children's learning but also take into account their experiences with this technology.

It is not uncommon to hear about rejections of technology being used in the classroom due to expensive, accessibility, technology working when you need. Now with the emergence of money and resources being created for schools to support teacher professional development for meaningful ICT implementation in the

classroom, arenas are now becoming available whereby ideas, strategies and applications of these technologies are being discussed for and with classroom teachers.

### **Pedagogy and Information Communication Technology (ICT)**

There are 'major shifts in patterns of cultural consumption. New generations of customers are using the internet, mobile telephony, digital media, etc. In ways that not only expand their range of cultural experience but also transform them from passive recipients of cultural messages into active co-creators of cultural content. (Throsby, 2010, p.6)

'Technology is changing the way education is being delivered and educators across the world are faced with a number of challenges' and 'despite the introduction of technology to most learning environments there has been little change in the process of teaching and learning' (Trinidad, 2003, p97). Teachers' philosophies of learning and teaching make a difference to the way technology, computers and other equipment, are used in the classroom (Snyder, 1996; Snyder, 1999; Becker, 2001; Trinidad, 2003; Jones & Vincent, 2006). Becker (2001) in his study found that teachers with a more constructivist teaching philosophy used technology more frequently and were more likely to apply their technical expertise in the classroom.

With the shift in global communications (Trinidad, 2003; Gee, 2003; Latham et al, 2006) 'new and exciting approaches to teaching, learning and assessment' (Trinidad, 2003, p.98) are inevitable. Pedagogical content knowledge goes 'beyond knowledge of subject matter per se to the dimension of subject matter knowledge for teaching' (Shulman, 1986, p.9). Shulman goes on further to argue that 'teachers need knowledge of the strategies most likely to be fruitful in reorganizing the understanding of learners, because those learners are unlikely to appear before them as blank slates (pp.9-10). Thus, educators need to shift their pedagogical approaches towards a balance between the appropriate use of direct instruction, collaboration, inquiry, knowledge construction, and other approaches to allow students to achieve (Trinidad, 2003). Teachers can modify pedagogy by the potential of innovative technology (Jones & Vincent, 2006). As educators, Snyder (1999) says 'it is our responsibility to assess critically how we can integrate these versatile and volatile technologies into our teaching' (p.3). Rickards (2003) reiterates saying that 'technology cannot replace the role of the effective teacher or facilitator completely; it can enhance what an effective teacher can provide in a classroom' (p.125).

### **Links with Technology: Why a digital camera?**

Digital photography provides immediate opportunities for analysis and engagement with individuals and settings under study. (Given & Julien, 2006)

Digital cameras are a resource for teaching in the classroom (Eber, 2002; Hamilton, 2004; Lemon, 2007). In a period of time where cameras that require film are no longer viable for schools, digital cameras strength is emerging (Van House et al, 2004). The expenses associated with processing of film and then not being

guaranteed of the shots you want just doesn't work for schools now. Technology allows the user to take a photo, see immediately if it needs to be retaken, delete if necessary, and print to a printer or save directly to a computer all at a touch of a couple of button. No extra expense is necessary once the full capacity of photos is taken, simply download, delete and start again. There is no fear of hoping the photos work because you think you may have put the film in the wrong way.

The current generation of children at school are more technologically conscious (Bach, 1998; Bach 2001; Swan, van't Hooft, Kratcoski & Unger, 2005; Latham et. al, 2006) and most students use mobile technology frequently (Selwyn, 2003). They are living their childhood in a world of iPods, mobile phones, wireless Internet, instant messaging, mobile gaming machines and video game devices. The digital camera forms a part of this technology; they are getting smaller and more powerful as technology advances – as can be seen by the introduction of the iPhone.

The digital camera is, however, a tool that allows the teacher to easily incorporate accessible technology into the classroom as part of the curriculum. In the twenty first century curriculum documents for schools are stipulating more use of technology in the classroom, it is no longer a separate subject run by a teacher who has skills in what the students are taught. With this comes the challenge for all teachers to become up-to-date with use of technology, and perhaps an even bigger challenge when research reports that teachers are struggling to integrate technology into their curriculum (Swan, van't Hooft, Kratcoski & Unger, 2005).

In taking advantage of today's children being more technological knowledgeable the challenge for teachers is to integrate real life learning equipment into the classroom to enhance and record the learning (Tinker & Krakcik, 2001; Swan, van't Hooft, Kratcoski & Unger, 2005). The digital camera is a tool that is as important as pencils and paper. It is available when needed and used in negotiation with and as a part of the curriculum. The use of the digital camera also addressed the research implications of Inkpen (2001) and Sharpies (2002) where they argued that the small and less destructive the device, the more chance it stands of becoming a life-long learning tool, anywhere and anytime. This paper builds further on these premises and also looks at the digital camera as a contribution to classroom and reflection of learning.

### **Context of study: Setting, Participants and Ethical considerations**

The setting of the study was an independent school in inner southern suburb of Melbourne, Victoria, Australia. The study involved seventeen young children aged 5 to 7 years (mean age 6.06 years), ten being female and seven being male, who used a digital camera to photograph what was important to them in relation to their learning while being a part of a Year One classroom.

The participants came from the coeducational junior campus (3 year old to year six program) of the school however the school also has two other campuses, one all girls primary and one all girls senior (year seven to twelve program). The school has an enrolment of 1, 100 students with 240 at the campus where the study

was carried out. This research was carried out in the context of a primary classroom within an International Baccalaureate (IB) school where the Primary Years Program (PYP) was being implemented.

Ethical permission was granted from The University of Melbourne ethics Committee, parents of all children, the children themselves and the school. Permission was granted to share findings and the student taken photographs at academic conferences, and in print. All names have been altered and given a pseudonym, however, ethical permission has been gained to show the images as produced with no blurring or alteration – as all involved in the study wanted the photographs shown as taken (for further discussion see Lemon, 2007).

### **Children generating digital photographs in the primary classroom**

*“It’s hard taking photos because you have to get the right angle. It’s really hard. And when you take a photo you have to think about it if it is right. If it is really good picture you should be really proud of yourself”.*

Stan, 6 years of age, reflecting on using a digital camera in the primary classroom

The underlying principles of this study were to provide the children with the opportunity to take photographs using a digital camera as a way to have their voices heard and to develop reflective skills as part of regular interaction in the learning community, and to support curriculum documents. It was important in establishing a learning community that all the voices of the classroom were heard whereby changing the traditional power notions of a classroom where the teacher directs the learning and discussion to one where all were learners, acknowledging that the role of “teacher” could be transferred amongst all in the classroom.

With this study the children were asked to firstly, participate in classroom activities as usual. Secondly, they were invited to use a digital camera as another way for them to reflect on their learning and to share their voice. This is an illustration where photographs were being used as a way to preserve the appearance of an event or a person (Bach, 1998; Bach, 2001). It is a method that allows for and makes visible the different parts or narratives of a story, as well enabling opportunity to explore different positions within a dynamic environment or situation. Close links were made between this and reflection whereby the student generates photograph with text provided by child photographer form a visual narrative.

One digital camera was used, and a rotation system was set up for the children to use the camera one at a time. This rotation process allowed students to use the digital camera at different times during the day and over the week at 30 minute intervals. The camera was kept on the teacher’s desk at the side of the room for easy access and for safety. In using the camera the following instructions were agreed upon by all participants (see Lemon, 2008) for further discussion about specific methodological steps):



- When the camera was in use no one should look at the camera or pose for the photographer as the natural occurrences in the classroom were wanting to be captured;
- It was the choice of each child if they wanted to use the digital camera in their scheduled time. If a child chose not to use the digital camera then it would remain on the teachers desk with the opportunity for another to use it if they wished;
- No limit was set as to how many images were to be taken;
- When using the digital camera the cord attached must be around the wrist of the photographer in case of an accident where one might trip over or drop the camera;
- After taking the photograph the child photographer would reflect about the images either through conversation with the teacher and/or peer(s) or via reflection using sentence starters provided (e.g.: what does your photograph tell us? What did you want to show to the viewer of your photograph? What is important to you in this photograph?) or a graphic organizer (e.g.: mind map, concept map, etc.). This builds on the notion of photo self elicitation (Harper, 2002); and
- Photographs once taken were downloaded onto the teacher's laptop for storage and viewing enabling the photographs to be immediately deleted from the digital camera and for another child to use the digital camera. Once the photographs were on the laptop they could be viewed or printed off according to the choice of the child as to how they were going to reflect. For conversations the photographs were viewed on the laptop screen. For written reflection and graphic organizer the child photographer would select the image(s) of choice to be reflected upon and then they would be printed.



Photograph 1: 'This is Hannah taking a photograph of me. We thought we could take photos of each other at the same time. You can see she is using the camera how we all agreed'. Photograph by Celia.

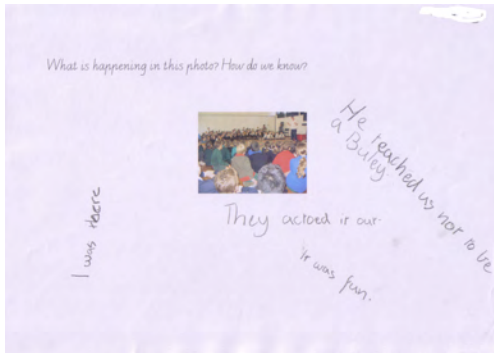
Following scheduled sessions within the curriculum, where photographs were taken independently, the participants were invited to discuss and reflect on why they had taken the photograph(s) (intention) and what it/they meant to them. This discussion was either a written reflection (reflection journal entry, graphic organizer such as a mind map or a graffiti wall) or a conversation 1 to 1 with their teacher, peer, and small

group of classmates or whole class. The children always had a choice as to if they would reflect and how they would do this and some of these examples can be seen in Table 1.

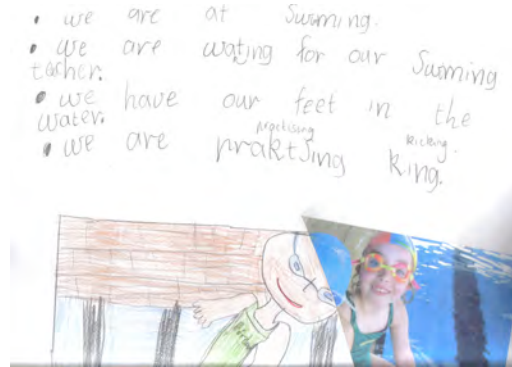
Use a part of a photograph, draw what is missing and then reflect about what is happening.	Take photograph in your head of something that happened to you at school today. Draw and write about.
As a class, create a graffiti wall about a series of photos or photo.	Talk about your photos one on one with your teacher.
Present your photos to the class.	Create a mind map about a photo you have taken.
Take a self-portrait and write about yourself.	Look at a photo of the class participating in an activity and finish the sentences.
Create a PowerPoint presentation of your photos.	Complete the sentences given to you about the photos presented in a PowerPoint presentation.
View a series of photos in a PowerPoint presentation and discuss as a class.	Illustrate your story through photographs.
Take a series of photos or one photo and write about them.	Take a series of photos or one photo and talk about them.
Take 5 photos that are important to you anywhere in the school.	Write a story using the true meaning of your photographs.

Table 1: Ways that visual narratives (photographs and text all generated by a child) were used in this primary classroom curriculum.

In the primary classroom not all students need to be working on the same task or activity at the same time. This allows for addressing different developmental stages and learning styles while allowing for child inquiry and negotiation. The whole class would be working on set activities while a child would work independently with the digital camera. There was a timetable for a specific time when each child could use the camera (times would rotate) while other times the camera was free from specific use allowing the flexibility for other children to photograph new discoveries that were unplanned. After the child finished taking the photos, the images would be downloaded onto a computer where the child photographer would share his/her narrative allowing the flexibility for another student to use the camera (see Photographs 2 - 5 for examples of children's visual narratives created through various strategies).



Photograph 2: Select a photo you have taken and finish the reflective sentence(s).



Photograph 3: Use a part of a photograph, draw what you think is missing and then reflect about what is happening.



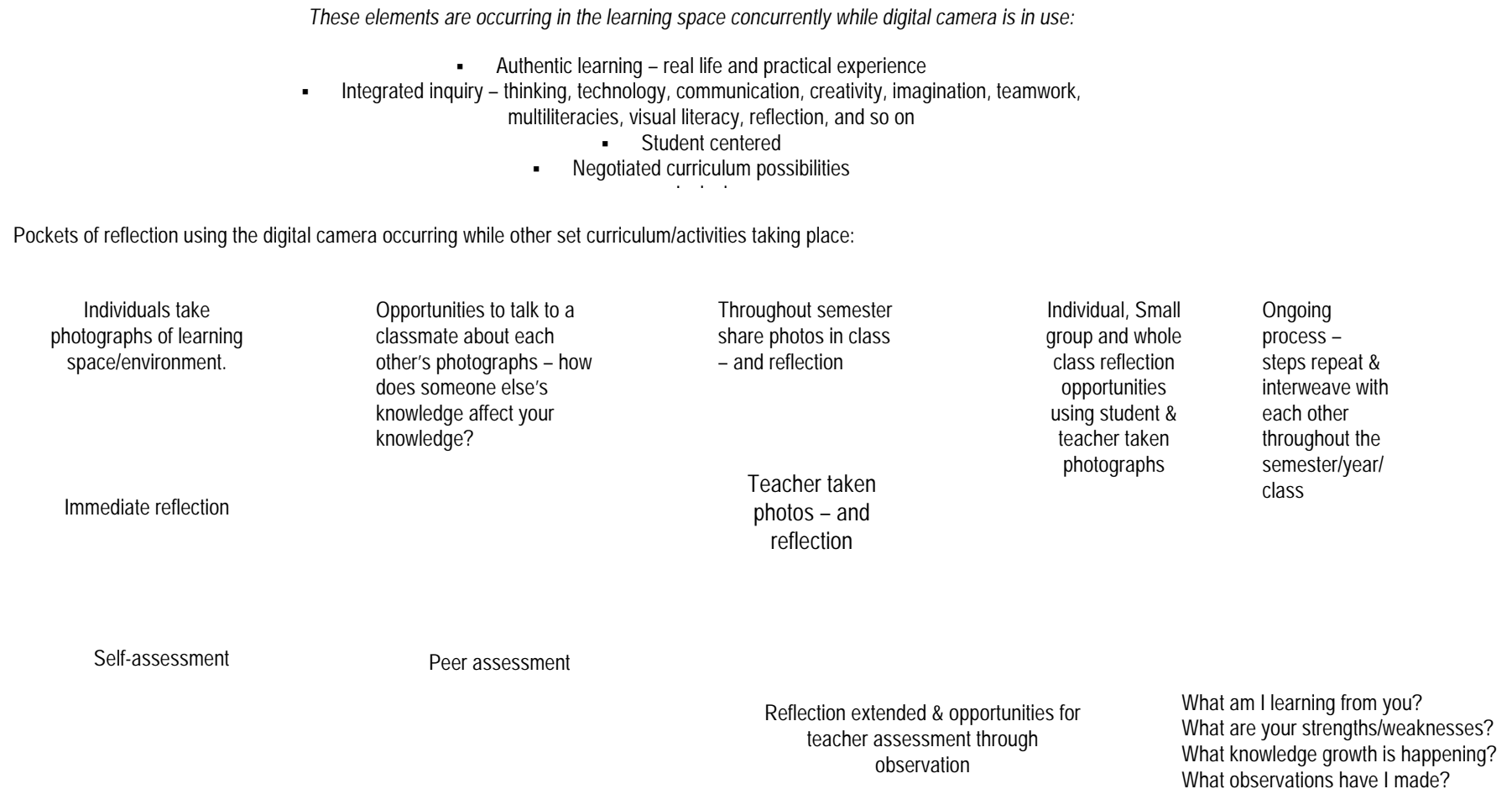
Photograph 4: Reflect on the photograph through a mind map (graphic organizer).



Photograph 5: Create a graffiti wall about a photo or series of photos.

Strong links were made in how these types of activities can promote interdisciplinary and long life learning skills including reflection, metacognition, thinking, communication, team work, risk taking, and personal learning (see Lemon, 2007; 2008). In the cycle of the children taking photos (Figure 1), reflection and communication of what they see and think while stimulating the asking of questions is important. Role transferring occurs when the teacher listens to the voice, narrative, of the photograph. In turn the teacher can become the learner and hear another perspective to their professional practice and what is happening in the learning community.

Figure 1: Model for use of digital camera within a classroom



### Thinking about quality – awareness of composition

Thinking analytically about the compositional quality of the student generated digital photographs comes from the compositional analysis as one of the three sites of meaning (Rose, 2001). The children's metacognitive skills were developed by thinking about 'what' and 'how' they were going to compose their photographs to support their reflection, as displayed in the following series of photographs where the children explored various angles at which their photos were taken.



Photograph 6: Bird's eye. (Cameron )



Photograph 7: Turning the camera to produce angles. (Stan)



Photograph 8: Close up. (Ben)



Photograph 9: Well I just went up close and I ...saw people writing [on the computer] and I decided to do it up close because some people were at the back ...and I didn't want them in the photo. (Hannah)

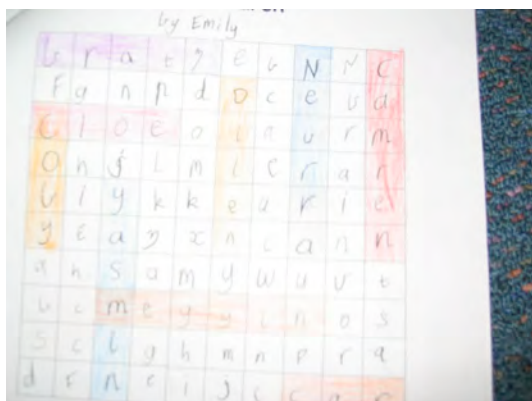


The following visual narrative illustrates the metacognitive functioning of young learners.



Photograph 10: I turned it on [an] angle to maybe make a different type of photo. (Stan)

Rose commented about her visual narrative saying, 'first I did mine [photographed the word search she designed for peers]. I was looking for it. It was a bit too close so I took another one. If I get too close it is blurry (Photograph 11). The second time (Photograph 12) is much better'.



Photograph 11: Rose's first photo.



Photograph 12: Rose's second attempt.

### **What the children were noticing: exploring elements of teaching and learning**

The children's visual narratives revealed the day-to-day experiences of the primary classroom. Goodman (1978) and Schön (1987) claim we continually make and remake versions of the world using words, numerals, pictures, sounds, and other symbols; a world that is constructed through versions, as opposed to a world that is found or ready-made. The lived experiences that the children of this study shared through their visual narratives showed a mix of indoctrinated rules and regulations versus experiences of freedom to inquire (hooks, 1994).

In the learning environment of this study children were encouraged to engage in conversations with each other and with classroom visitors to think and explore meaning-making and to construct knowledge. In our learning community, I encouraged a sense of belonging, meaning-making and a valuing of authentic experiences. Moreover, the children were encouraged to believe that everyone in the classroom is a learner – student, teacher, and visitors – and that we can all learn from each other. The process of the children’s visual narratives provided opportunities for a supportive, celebratory discourse to be enacted.

Student sharing and engaging with each other’s work contributed to the sense of being a community of learners and diminished the reliance upon teacher centred practices. Sharing went beyond an activity that occurred in the morning classroom schedule into one where the children shared knowledge and explored questions with peers.

Ben, Rose and Gemma’s photos (Photographs 13 - 16) show this happening as they reinforce knowledge, ask questions, think about learning links, and reflect on their learning environment. In the session when these photographs were taken, roles were reversed with the child leading the inquiry thus, transforming the traditional participation and identity constructions in a community of practice (Wenger, 1998).

Photograph 13: Gemma’s photo of teacher role reversal.      Photograph 14: Gemma’s photo of Olive teaching the class.

Photograph 15: Rose’s photo of Jane teaching the class about her home country, America, through a traditional doll she brought to school from home.	Photograph 16: Ben’s photo of Gemma recording student comments on the whiteboard during a brainstorming session.
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As part of the community, parents, siblings or other teachers would often join the class taking on varying roles, such as listening to reading, visiting experts or as learners themselves. The following photographs show the children's observations of some of these occurrences:



Photograph 17: Charles photographs a peer's parent helping children in the classroom read.



Photograph 18: Olive photographs a parent visitor. She had heard from her daughter about parents visiting the classroom and wanted to experience being a part of the community.



Photograph 19: Cameron photographs a teacher from another grade.

Cooperative teaching and learning (Johnson & Johnson, 1994) where different roles and skills are developed through working interdependently also featured in the children's photographs, highlighting this aspect of our learning community. Conversations, building knowledge and skills in various disciplines as well as social skills, collegiality, communication and collective decisions, are deemed vital characteristics for the learners of the 21<sup>st</sup> century (Wenger, 1998; Groundwater-Smith, 2007; Latham *et al.*, 2007; Darling-Hammond, 2007).





Photograph 20: James' photo of Gemma and Claire working together to build a Lego construction.



Photograph 21: Rose's photo of two peer's problem solving during a numeracy activity.

Complementing the cooperative teaching and learning were photographs of children working independently.



Photograph 22: Writing activity .(Jane)



Photograph 23: Ceilia working hard on her design.  
( Bradley)

Whole class learning experiences also featured in the children's visual narratives in which skills were modelled and scaffolded before independent small groups or individual exploration occurred, as shown in the following children's photos.



Photograph 24: Photo by Ben.



Photograph 25: Photo by Charles.



Photograph 26: Photo by Ben.

## Conclusion

While the digital camera is in use the classroom as part of the curriculum, as a tool for reflection, the learning space is being promoted as one where real life and practical experiences are supported and provided (authentic and inclusive learning). Although all activities have this consideration, specifically I refer to the use of information technology communication (ICT) that is practical and children see in use both within the classroom context and outside. While the digital camera is a tool to allow students to capture what is important for them they are using skills that are supportive of integrated inquiry – thinking, technology, communication, creativity, imagination, teamwork, multiliteracies, visual literacy, reflection, and so on. The process of using the camera is student centered, where scaffolding is provided for use of the camera with students taking their skills and ideas to capture what they see and whereby negotiated curriculum opportunities possibilities are encouraged.

This paper has explored how primary education can successfully integrate new technologies into the learning environment and how it effectively accommodates learning objectives. The ICT used as part of this study, the digital camera, has aligned itself with integration into the primary classroom and pedagogy (Snyder, 1999; Gibbons, 2006) not replacing the role of the effective teacher or facilitator completely but rather enhancing what an effective teacher can provide in a learning space (Rickards, 2003). As too has the

visual method in providing another way to understand knowledge and the voices within the settings while connecting with the authentic life long learning.

Exploring voice and learning was a part of the community of practice. Opportunities were created where the children felt open to reflecting on their own photographs in a 1 on 1 situation with their teacher, peers within the class and within the school. The children were encouraged to offer their photographs for classroom activities to promote further reflection as well as wall displays extending the traditional notion of teacher taken photographs being displayed of a 'special event or excursion.

In connecting with long life learning and authentic experiences the children's engagement in the photograph taking and reflection process was extended outside the classroom "walls" into other learning spaces. Many children became engaged in conversations with parents and family having the opportunity to use a camera at home or while on family photos to share their voice and observations. Some students extended their skills by teaching a parent to use a digital camera they had purchased for personal use but hadn't yet gained expertise in. Students gained confidence in being able to explore language to describe what they had experienced and seen around them in the learning environment. The children were able to freely share their learning experiences and voice about events, occurrences, and relationships with others in regards to what was important to them and what they were inquiring into.

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